

EXECUTIVE SUMMARY

ENERGY FUELS NUCLEAR, INC.

Hillside, Gizmo, Maybe, Vallejo
Bears Ears Mine Complex

- ACT/037/015

Sections 2, 10 and 11,
Township 37 South, Range 16 East

San Juan County, Utah

LOCATION:

Energy Fuels Nuclear, Inc. is operating a five mine underground room-and-pillar and stope uranium-vanadium complex located in Sections 2, 10, and 11, Township 37 South, Range 16 East, San Juan County, Utah. All of the five mines are relatively small and are located on the side of a steep mesa known as the Moss Back, adjacent to the head of Fry Canyon. All of the mines except for the Vallejo will be interconnecting underground. Ore will be brought to the surface at the Hillside portal.

Refer to the enclosed map for location.

SOILS AND GEOLOGY:

Due to the location of the mines, located on steep mesa sides, soils are shallow and rock outcrops are numerous. The mines are reactivations of pre-existing operations that existed prior to the Utah Mined Land Reclamation Act; because of this soils were not stockpiled. Energy Fuels Nuclear, Inc. will attempt to revegetate the spoil material and disturbed areas without spreading soil over the area.

Existing waste-rock dumps tend to be oversteepened resulting in tension fractures and erosion.

The geology is simple and the structure is relatively flat. Ore is mined from the Triassic Chinle Formation.

HYDROLOGY:

There are no perennial streams adjacent to the mine complex. Ephemeral washes drain the area and flow into the channel within Fry Canyon which may be intermittent.

The erosion potential of the natural undisturbed area is relatively high due to soil characteristics and sparse vegetation. Erosion potential of the mine areas is extremely high. This is due to spoil material being dumped over the edge thereby lying at the angle of repose. The waste-rock particles are easily detached by rainfall, and the slopes are steep and long. These factors give rise to severe erosion and sediment production. However, there is no other feasible method of surface spoil disposal. The impacts of the severe erosion potential are slight as the sediment is redeposited as the slopes become less steep. Sediment probably does not reach a perennial watercourse.

The mines have not encountered significant groundwater, and they do not discharge mine water to the surface.

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ECOLOGY:

The mine sites are sparsely vegetated with Pinyon Pine, juniper, sagebrush, and native grasses. The area is mule deer habitat and is year long desert bighorn habitat.

STRUCTURES AND FACILITIES:

There are no buildings of permanent structure at the five mine sites. In total there are five portals and one ventilation shaft. Numerous access roads cross the area.

MINING AND RECLAMATION:

Energy Fuels Nuclear has committed to the items listed below:

During Operations:

- a. Only existing disturbed surface sites will be utilized. No new roads or sites will be constructed.
- b. Access to the mines will be provided via existing roads which will be maintained on a regular basis to enable efficient use and travel.
- c. No acid, alkali, or toxic producing materials will be developed or extracted.
- d. Mining will be conducted in a safe, sound, technical and prudent miner-like fashion.

After Operations:

- a. Abandon the areas in a self-draining and non-impounding condition.
- b. Comply with all requirements of Rule M-10, Reclamation Standards, wherever applicable.
- c. Reseed reclaimed areas by hand with a diverse grass-shrub-Legume seed mixture as recommended by the Division of Oil, Gas, and Mining.
- d. Energy Fuels Nuclear, Inc. will be responsible for successful revegetation of the area, to the extent practicable, including maintenance, soil amendments, and reseeding if necessary.

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- e. Surface pads and roads will be ripped, seeded, and water bars will be installed to control drainage and check erosion on steep grades.
- f. All surface debris, scrap metal, discarded wood and unuseable buildings will be either buried or removed from the site.

IMPACTS:

The mine facilities were in existence prior to the Utah Mined Land Reclamation Act. The Reclamation Plan will eliminate safety hazards and reduce environmental and visual impacts.

SURETY ESTIMATE:

Reclamation Surety for this operation was estimated to be ~~\$13,752.00~~ ^{24,792.00} which includes 5% inflation for the 5-year proposed mine life.

The surety estimate includes the following work:

- a. Sealing of 5 portals and 1 vent shaft.
- b. Removal of structures and equipment.
- c. Removal of trash and debris.
- d. Regrading of the top of the over-the-edge spoil piles so as to establish proper drainage.
- e. Scarification and seeding of all disturbed areas including roads.
- f. Construction of water bars.
- g. Supervisory Labor.
- h. Removal of hazardous substances.
- i. Monitoring and reseeding if necessary.
- j. 5% inflation.

~~A~~ copy of the reclamation surety is enclosed.

APPLICATION HISTORY:

February 8, 1977	Copies of Rules and Regulations and forms sent to Charles R. Martin & Associates.
March 2, 1977	Division field inspection of Hillside-Gizmo-Maybe with Martin and Snyder.
August 25, 1977	Telephone conversation between Brian Buck and Roger Smith of Energy Fuels Nuclear, Inc. concerning mine status.
September 21, 1977	Division field inspection of Hillside Mine.
February 10, 1978	Telephone conversation between Ronald W. Daniels and Dave Markley of Energy Fuels Nuclear, Inc. An inquiry was made by Mr. Markley as to declare the operation exempt as each mine is under two acres. He was informed that the Division did not feel the operation would qualify for a Declaration of Exemption.
February 14, 1978	Declaration of Exemption submitted for the mines.
February 24, 1978	Letter of reply sent to Energy Fuels Nuclear, Inc. stating that the 5 mines would be considered one operation and would not qualify for a Declaration of Exemption.
March 1, 1978	On site meeting with Energy Fuels Nuclear, Inc.
April 3, 1978	Submittal of Mining and Reclamation Plans for five mine complex.
April 10, 1978	MR-1 and MR-2 Forms returned to Energy Fuels Nuclear, Inc. for signatures.
April 24, 1978	Signed plans received.
May 10, 1978	Letter sent to Energy Fuels Nuclear, Inc. to correct an inaccurate legal description of mine location.

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May 17, 1978

Telephone call received giving correct location.

May 30, 1978

Letter sent to Energy Fuels Nuclear, Inc. requesting various commitments and clarifications.

July 10, 1978

Reply to May 30, 1978, letter received.

August 24, 1978

Telephone call received from Energy Fuels Nuclear, Inc. requesting approval status of mine plan.

January 3, 1979

Division site inspection.